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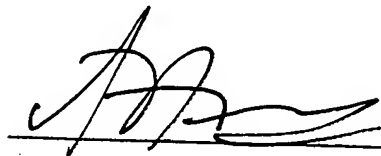
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IN THE APPLICATION OF :

APPLICANT:	ATAUL HAQ
SERIAL NO.	60/399,457
FILED:	JULY 31, 2003
TITLE:	AUTOMATIC TOILET DEODORANT SPRAY MECHANISM
APPLICATION:	UTILITY PATENT

Signature:

A handwritten signature in black ink, appearing to be 'Ataul Haq', written over a horizontal line.

Ataul Haq

TITLE OF THE INVENTION

AUTOMATIC TOILET DEODORANT SPRAY MECHANISM

CROSS-REFERENCE TO THE RELATED ART

5- This application claims the benefit of U.S. Provisional Patent
Application Serial No. 60/399,457 filed on July 31, 2002.

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

The present invention relates to house-hold hygiene , and more particularly a toilet odor eliminating retrofit able apparatus.

2. DESCRIPTION OF PRIOR ART

10 Various invention have attempted to resolve this toilet odor
elimination apparatus, but none have been economical and practical from the
user perspective. This present invention addresses, in particular, hygiene and
time of the consumer, by creating untouchable-automatic deodorant spray at
15- every use of the toilet flush.

The invention of Cain, Martin dated Jan. 28, 1999 # 5,862,532 details a dispenser which fail to automatically dispense the deodorant, instead requires the user to press a knob to spray the freshener into the toilet bowl. This invention is not practical for the fact that user can instead press the knob of the spray can and spray the deodorant into the bowl. Furthermore, Cain's invention is has a very unhygienic way of delivering the spray mist into the bowl through a head placed on the bowl where it will accumulate with liquid and solid waste.

Yet another invention by Martin Robert F. and Batt Lawrence dated Oct. 14, 1997 uses toilet flush handle to electronically actuate the dispenser to spray deodorant. The use of switches and electrical system in the Martin's invention have made the apparatus very complicated and uneconomical to produce and market. Yet another problem with their invention is the hazard of electrical shock in a very wet environment of bathrooms. Whereas, in case of battery operated apparatus, the invention become burden on the user to keep track of battery life and also an extra expense.

There are other inventions which are inherently not functional or uneconomical or present more functional problems and more hygiene related issues, rather than making house-hold life more easy and very much up to hygiene.

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BRIEF SUMMARY OF THE INVENTION

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The present invention "Automatic toilet deodorant spray mechanism" is drawn to a simple yet economical retrofit able apparatus for user to install on any existing toilet flush tank. This dispenser can use any existing deodorant spray can to be installed once inside the dispenser to function automatically at every press of toilet flush tank handle. The principal object of this invention is to eliminate the need of looking for spray air-freshener by the user after the use of toilet. It is another object of this invention is to automatically spray the deodorant mist at every use of the flush tank in the toilet. It is a further object of the invention is to provide the user with away to use any type of air freshener spray can into this invented dispenser repeatedly. Yet it is another object of this invention is to provide a simple, economical and rugged automatic deodorant dispensing mechanism to be able to use with any existing toilet flush tank and also provide user with away to replace empty spray can with a new spray can.

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The invented apparatus is an adjustable toilet flush tank mount dispenser. The placement of the dispenser on the side of the toilet flush tank is secured by means of the side grip and the dispenser is placed in such a manner that adjustable actuator lever falls under the toilet flush tank handle. The actuator lever can be adjusted to accommodate for different position, shape and size of flush handle.

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A deodorant spray can is placed inside the dispenser and necessary adjustment for height, width and nozzle position are done once. At every flush of the toilet flush tank, the actuator lever is depressed automatically causing the deodorant to spray in the vicinity of the toilet.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure-1 is a perspective view of the invented dispenser mechanism with all, but not limited to, functional components. The shape of dispenser is shown only for the purpose of detail of functional components.

5- Figure-2 is a sectional view of the clamping mechanism integrated with the dispenser in figure-1

Figure-3 is a sectional view of the bottom latched door for filling deodorant spray can into the dispenser shown in figure-1

10 Figure-4 is a perspective view of the dispenser in figure-1 attached with a toilet flush tank for the intended purpose.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

5 As best illustrated in figure-1 and figure-4, the "Automatic toilet deodorant spray mechanism" the present invention, is generally indicated as a perspective view of the invented mechanism in general, showing all the functional components in general.

The present invention " Automatic Toilet Deodorant spray mechanism" is comprises of eleven (11) functional components, in general.

10 Components # 1, is a dispenser casing, preferable made of wire mesh coated with plastic or like substance, which holds the deodorant spray can in upward position, securely in position for its complete use.

Component # 2, is a flush tank holding grip with a lock screw and rubber padding , is an integrated part of the components # 1, having a general configuration shown in figure-2, such that it can be securely mounted on the side of any toilet flush tank.

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Component # 3, is a spray can thickness adjuster, in order to accommodate different type of deodorant spray can available in the consumer market. This horizontal adjuster is mounted on one side of the dispenser casing with the help of a hand moveable screw along with a padded curve plate. This component also provides a firm grip of the spray can.

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Component # 4, is a bottom fill door, hinged on the bottom part of the dispenser (component # 1) as best illustrated in figure -1 and figure-3. One side of the fill door is hinged on to the dispenser and one side is provided with a latch catch for the door to lock in a closed position into the receiving end of the latch.

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Component # 5, is a base plate set on hand moveable screw having a rubber padding placed on the fill door (component # 4). This base plate can be moved up and down in order to accommodate spray can of different height. This base plate also provide a secure grip for the spray can.

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Component # 6, is fixed arm pressure lever attached to the dispenser casing with a pin as best illustrated in figure-1. This fixed length pressure lever is provided with a slot along a portion of its length to accommodate an adjustable vertical pressing boot assembly.

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Component # 7, is a adjustable floating boot assembly, placed into the slot of the component # 6, as best illustrated in figure-1. This assembly can be adjusted along the length of the fixed arm lever as well as in different depth in order to sit properly on the tab of the spray nozzle on the spray can.

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Component # 8, is a linear adjustable arm of the pressure lever integrated with component # 6 as illustrated in figure-1. This adjustable arm can be slide in and out over the component # 6 in order to provide adjustment of the lever arm to place itself as required for the operation. The position is secured and fixed with the help of a hand screw.

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Component # 9, is a radially adjustable arm of the pressure lever as illustrated in figure-1. This component is integrated on component # 8 with a help of a hand tight screw, in order to position the pressure lever assembly under the toilet flush tank handle for proper operation. This radial arm of the lever assembly is provided with a rubber grip at the free end under the flush tank handle.